

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (cancelled).

2 (currently amended). The method claimed in claim + 24, wherein a plurality of subject matter detectors are provided, and further comprising the step of selecting one or more of the provided subject matter detectors.

3 (currently amended). The method claimed in claim + 24, wherein a plurality of image enhancement operations are provided, and further comprising the step of selecting one or more of the provided image enhancement operations.

4 (currently amended). The method claimed in claim + 24, wherein the target subject matter is human flesh.

5 (currently amended). The method claimed in claim + 24, wherein the target subject matter is clear blue sky.

6 (currently amended). The method claimed in claim + 24, wherein the target subject matter is lawn grass.

7 (currently amended). The method claimed in claim + 24, wherein the target subject matter is snow field.

8 (currently amended). The method claimed in claim + 24, wherein the target subject matter of is a body of water.

9 (currently amended). The method claimed in claim + 24, wherein the image enhancement operation is sharpening.

10 (currently amended). The method claimed in claim + 24, wherein the image enhancement operation is noise reduction.

11 (currently amended). The method claimed in claim + 24, wherein the image enhancement operation is tone scale adjustment.

12 (currently amended). The method claimed in claim + 24, wherein the image enhancement operation is scene balance adjustment.

13 (currently amended). The method claimed in claim + 24, wherein the image enhancement operation is color re-mapping.

14 (currently amended). The method claimed in claim + 24, wherein the image enhancement operation is JPEG de-blocking.

15 (currently amended). The method claimed in claim + 24, wherein the image enhancement operation is image magnification employing interpolation.

16 (original). The method claimed in claim 15, wherein the image interpolation is selectable between bilinear interpolation and fractal based interpolation.

17 (original). The method claimed in claim 2, wherein the target subject matters include human flesh, clear blue sky, lawn grass, snow fields, and water bodies.

18 (original). The method claimed in claim 3, wherein the image enhancement operations include sharpening, noise reduction, JPEG de-blocking, tone scale adjustment, scene balance adjustment, and color re-mapping.

19-21 (cancelled).

22 (currently amended). The method claimed in claim 1 24, further comprising the step of reducing the resolution of the digital image prior to applying the subject matter detector.

23 (cancelled).

24 (currently amended). A method for processing a digital image, comprising the steps of:

providing a subject matter detector for distinguishing between target and background subject matters;

applying the subject matter detector to the image to produce a belief map of values indicating the degree of belief that pixels in the image belong to target subject matter, said values defining a plurality of belief regions;

analyzing the belief map to generate a control signal;

providing an image enhancement operation that is responsive to the control signal for controlling the degree of image enhancement; and

applying image enhancement operation to the digital image by varying the control signal pixel by pixel according to the belief map to produce an enhanced image;

wherein the analyzing includes determining the size of each belief region and enhancing the control signal based on the size.

25 (currently amended). A computer readable program product stored on a computer readable medium for performing the method of claim 1 24.

26 (currently amended). A system for processing a digital image, comprising:

a subject matter detector distinguishing between target and background subject matters in the digital image to produce a belief map of values indicating the degree of belief that pixels in the digital image belong to target subject matter, said values defining a plurality of belief regions; and

a belief map analyzer ~~analyzing said belief map and providing an analysis result~~ determining sizes of said belief regions;

an image enhancement operator enhancing said digital image, said image enhancement operator controlling the degree of image enhancement pixel by pixel, in accordance with both the degree of belief and ~~said analysis result~~ the size of the respective said belief region.

27 (currently amended). The method of claim + 24 wherein said values indicate more than two different degrees of belief that respective pixels in the image belong to target subject matter.

28 (cancelled).

29 (currently amended). The method of claim ~~28~~ 35 wherein said assigning is based upon color and texture features.

30 (cancelled).

31 (currently amended). The method claimed in claim ~~28~~ 35, further comprising selecting one or more of a plurality of subject matter detectors and using said one or more subject matter detectors to produce said belief values.

32 (previously presented). The method claimed in claim 31, wherein said using further comprises reducing the resolution of the digital image prior to applying the subject matter detector.

33 (previously presented). The method claimed in claim 31, further comprising selecting one or more of a plurality of image enhancement operations, and using said one or more image enhancement operations in said enhancing.

34 (new). A method for processing a digital image, comprising the steps of:

applying a subject matter detector to the digital image to produce a belief map of values indicating the degree of belief that pixels in the digital image belong to target subject matter, said values defining a plurality of belief regions;

determining the sizes of each of said belief regions in said belief map;

enhancing the digital image, said enhancing varying pixel by pixel in accordance with both the degree of belief and the size of the respective said belief region.

35 (new). The method of claim 34 wherein said applying further comprises assigning one of three or more different belief values to each of the pixels of the digital image.

36 (new). A method for processing a digital image, comprising the steps of:

providing a subject matter detector for distinguishing between target and background subject matters;

applying the subject matter detector to the image to produce a belief map of values indicating the degree of belief that pixels in the image belong to target subject matter;

analyzing the belief map to generate a control signal;

providing an image enhancement operation that is responsive to the control signal for controlling the degree of image enhancement; and

applying image enhancement operation to the digital image by varying the control signal pixel by pixel according to the belief map to produce an enhanced image;

wherein the analyzing includes determining the location of each belief region within said belief map and enhancing the control signal based on the locations.

37 (new). The method claimed in claim 36 further comprising selecting one or more of a plurality of subject matter detectors and using said one or more subject matter detectors to produce said belief values.

38 (new). The method claimed in claim 37, wherein said using further comprises reducing the resolution of the digital image prior to applying the subject matter detector.

39 (new). The method claimed in claim 37, further comprising selecting one or more of a plurality of image enhancement operations, and using said one or more image enhancement operations in said enhancing.

40 (new). A method for processing a digital image, comprising the steps of:

applying a subject matter detector to the digital image to produce a belief map of values indicating the degree of belief that pixels in the digital image belong to target subject matter;

determining the locations of each of a plurality of belief regions in said belief map;

enhancing the digital image, said enhancing varying pixel by pixel in accordance with both the degree of belief and the location of the respective said belief region.